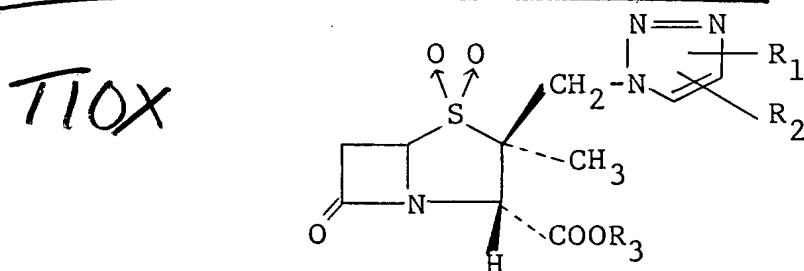


PENICILLIN DERIVATIVES AND PROCESS
FOR PREPARATION OF THE SAME

ABSTRACT:

A penicillin derivative represented by the following formula



wherein R_1 is hydrogen or trialkylsilyl; R_2 is hydrogen, trialkylsilyl or COOR_2' wherein R_2' is hydrogen, C_{1-18} alkyl, C_{2-7} alkoxyethyl, C_{3-8} alkylcarbonyloxyethyl, C_{4-9} alkylcarbonyloxyethyl, $(\text{C}_{5-7}$ cycloalkyl)carbonyloxyethyl, C_{9-14} benzylcarbonyloxyalkyl, C_{3-8} alkoxy-carbonylmethyl, C_{4-9} alkoxy-carbonyl-ethyl, phthalidyl, crotonolacton-4-yl, γ -butyrolacton-4-yl, halogenated C_{1-6} alkyl substituted with 1 to 3 halogen atoms, C_{1-6} alkoxy- or nitro-substituted or unsubstituted benzyl, benzhydryl, tetrahydropyranyl, dimethylaminoethyl, dimethylchlorosilyl, trichlorosilyl, (5-substituted C_{1-6} alkyl or phenyl or unsubstituted-2-oxo-1,3-dioxodene-4-yl)methyl, C_{8-13} benzoyloxyalkyl or group for forming a pharmaceutically acceptable salt; and R_3 has the same meaning as above R_2' .